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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Woo *et al.*

Application No.: 09/836,704

Group Art Unit: 1637

Filed: April 16, 2001

Examiner: Christine L. Maupin

For: MOBILITY-MODIFIED NUCLEOBASE  
POLYMERS AND METHODS OF  
USING SAME

Attorney Docket No.: 9584-027-999

Confirmation No.: 6599

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.56 AND § 1.97**

Assistant Commissioner for Patents  
Washington, D.C. 20231

SIR:

In accordance with the continuing duty of disclosure imposed by 37 C.F.R. § 1.56 and § 1.97 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of any claim of the application, Attorneys for Applicants hereby direct the Examiner's attention to references AA-BG listed on the attached revised form PTO 1449 entitled "List of References Cited by Applicants." A legible copy of references AA-BG is submitted herewith.

Identification of the listed references is not to be construed an admission of Applicants or Attorneys for Applicants that such references are available as "prior art" against the subject application. Consequently, Applicants respectfully decline to use form PTO-1449, since this form identifies all of the references cited therein as "Prior Art." As an alternative, Applicants submit herewith a "revised form PTO 1449" entitled "List of References Cited" instead of "List of Prior Art Cited."

Applicants respectfully request that the Examiner review the foregoing references and that the references be made of record in the file history of the application.

Because this Information Disclosure Statement is being submitted before the mailing date of a first Office Action on the merits, no fee is believed due. Please charge the required amount to Pennie & Edmonds LLP Deposit Account No. 16-1150. A copy of this sheet is enclosed for accounting purposes.

Respectfully submitted,

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Date December 13, 2002

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Enclosures



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## LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.

9584-027-999

APPLICATION NO.

09/836,704

APPLICANT

Woo et al.

FILING DATE

April 16, 2001

GROUP

1645

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	6,339,069	1/15/02	Meers et al.			
	AB	6,143,716	11/7/00	Meers et al.			
	AC	6,087,325	7/11/00	Meeers et al.			
	AD	6,063,569	5/16/00	Gildea et al.			
	AE	6,013,785	1/11/00	Bruice et al.			
	AF	5,807,682	9/15/98	Grossman et al.			
	AG	5,777,096	7/7/98	Grossman et al.			
	AH	5,703,222	12/30/97	Grossman et al.			
	AI	5,624,800	4/29/97	Grossman et al.			
	AJ	5,580,732	12/3/96	Grossman et al.			
	AK	5,514,543	5/7/96	Grossman et al.			
	AL	5,470,974	11/28/95	Summerton et al.			
	AM	5,470,967	11/28/95	Huie et al.			
	AN	5,470,705	11/28/95	Grossman et al.			
	AO	5,185,444	2/9/93	Summerton et al.			
	AP	4,914,210	4/3/90	Levenson et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	AQ	Agrawal et al., 1986, "Efficient methods for attaching non-radioactive labels to the 5' ends of synthetic oligodeoxyribonucleotides", Nucl. Acids Res. 14:6227-6245
	AR	Conway et al., 1990, "Site-specific attachment of labels to the DNA backbone", in: <u>Oligonucleotide Analogs: A Practical Approach</u> , Eckstein, ed., IRL Press, Oxford, pp. 211-239 (Chapter 9)
	AS	Fathi et al., 1994, "Oligonucleotides with novel, cationic backbone substituents: aminoethylphosphonates", Nucl. Acids Res. 22:5416-5424
	AT	Grossman et al., 1994, "High-density multiplex detection of nucleic acid sequences: oligonucleotide ligation assay and sequence-coded separation", Nucl. Acids Res. 22:4527-4534
	AU	Haaima et al., 1996, "Peptide nucleic acids (PNAs) containing thymine monomers derived from chiral amino acids: hybridization and solubility properties of D-lysine PNA", Angew. Chem. Int'l. Ed. Engl. 35:1939-1942



		Jones et al., 1993, "Synthesis and binding properties of pyrimidine oligodeoxynucleoside analogs containing neutral phosphodiester replacements: the formacetal and 3'-thioformacetal internucleoside linkages", J. Org. Chem. 58:2983-2991
	AW	Molyneaux, 1984, in: <u>Water-Soluble Synthetic Polymers: Properties and Behavior</u> , CRC Press, pp.19-117 (Chapters 2 & 3)
	AX	Muller et al., 1981, "Polyethylene glycol derivatives of base and sequence specific DNA ligands: DNA interaction and application for base specific separation of DNA fragments by gel electrophoresis", Nucl. Acids Res. 9:95-119
	AY	Nathakarnkitkool et al., 1992, "High-resolution capillary electrophoretic analysis of DNA in free solution", Electrophoresis 13:18-31
	AZ	Nelson et al., 1992, "Oligonucleotide labeling methods. 3. Direct labeling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1,3-propanediol backbone", Nucl. Acids Res. 20:6253-6259
	BA	Samstag et al., 1996, "Synthesis and properties of new antisense oligodeoxynucleotides containing benzylphosphonate linkages", Antisense Nucl. Acid Drug Dev. 6:153-156
	BB	Sinha et al., 1994, "Synthesis of oligodeoxynucleoside methylphosphonates utilizing the <i>tert</i> -butylphenoxyacetyl group for exocyclic amine protection", Nucl. Acids Res. 22:3119-3123
	BC	Stirchak et al., 1987, "Uncharged stereoregular nucleic acid analogues. 1. Synthesis of a cytosine containing oligomer with carbamate internucleoside linkages", J. Org. Chem 52:4202-4206
	BD	Vasseur et al., 1992, "Oligonucleosides: Synthesis of a novel methylhydroxylamine-linked nucleoside dimer and its incorporation into antisense sequences", Am. Chem. Soc. 114:4006-4007
	BE	Vinogradov et al., 1998, "Self-assembly of polyamine-poly(ethylene glycol) copolymers with phosphorothioate oligonucleotides", Bioconjugate Chem. 9:805-812
	BF	Wu and Wallace, 1989, "The ligation amplification reaction (LAR) - amplification of specific DNA sequences using sequential rounds of template-dependent ligation", Genomics 4:560-569
	BG	Zhou and T'so, 1996, "Solid-phase synthesis of oligo-2-pyrimidinone-2'-deoxyribonucleotides and oligo-2-pyrimidinone-2'-deoxyriboside methylphosphonates", Nucl. Acids Res. 24:2652-2659
EXAMINER		DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		